

# Homeowner's Guide to Flood Plain Management

## What Are Flood Plains?

Flood plains are lands that border rivers and streams. They normally are dry but can be covered with water during or after storms.

Flood plains serve a critical function during severe storms — they provide storage capacity for excess water until downstream water courses can accept it.

## Why Is Flood Plain Management So Important?

Floods can damage buildings or other structures that are placed in flood plains. Placing structures in a flood plain can increase flooding and flood damage on adjacent property. That's because structures in flood plains can change the pattern of water flow by blocking the flow of water and increasing the width, depth, or velocity of flood waters.

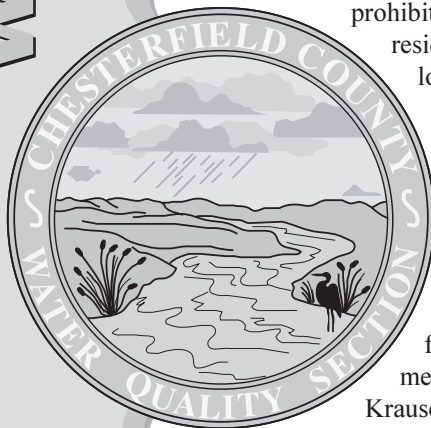
In addition to storing excess water during severe storms, flood plains (if they are properly managed) have the secondary benefit of protecting the water quality of our streams. Flood plains, in the form of vegetated land cover, act as buffer zones between streams and nearby development.

As stormwater flows over developed areas, it picks up pollutants such as motor oil from roads, soil from construction areas, and fertilizers and pesticides from lawns. A vegetated buffer can effectively remove these pollutants, through the filtering action of grasses, shrubs, and trees and by allowing stormwater to soak into the soil.

## Flood Plain Ordinance

In March 1983, Chesterfield County adopted the *Flood Plain Management Ordinance*. The Ordinance prohibits certain uses, activities, and residential development from locating within areas that are subject to flooding. The purpose of the Ordinance is to prevent loss of life and damage to dwellings.

A copy of the complete *Flood Plain Management Ordinance* can be picked up from the Department of Environmental Engineering at 6806 West Krause Road.



## Do's and Don'ts of Flood Plain Management

### Please DO:

- ☺ Leave natural vegetation, including undergrowth, in flood plains.
- ☺ Remove significant blockages, such as fallen trees, from flood plains and water courses.
- ☺ Maximize the distance between lawns or vegetable gardens and flood plains.
- ☺ Contact the Department of Environmental Engineering at 748-1035 with questions about flood plains.

### Please DON'T:

- ☹ Clear-cut or fill in flood plains.
- ☹ Deposit leaves, grass clippings, brush, or other debris in flood plains.
- ☹ Stockpile firewood in flood plains.

## Frequently Asked Questions

**Q.** *Can I put a fence in the flood plain?*

**A.** The Ordinance doesn't prohibit fences. However, the practice is discouraged because fences located in flood plains are very often damaged by flooding, are prone to collect debris, and can alter flood plains.

**Q.** *Is filling in the Flood Plain recommended?*

**A. No!** Filling in the flood plain can permanently alter the flow of water, compromise the storage capacity and water quality benefits of the flood plain, and potentially affect adjacent properties.

**Q.** *Can I clear-cut trees in the flood plain?*

**A.** The Flood Plain Ordinance does not expressly prohibit clear-cutting trees in a flood plain. However, the Department of Environmental Engineering **strongly discourages** this practice because clear-cutting can permanently alter the flood plain and result in the release of excess sediment into a stream.

**Q.** *If a flood plain is located in the Chesapeake Bay Resource Protection Area, can I clear-cut trees?*

**A. No.** The *Chesapeake Bay Preservation Ordinance* **prohibits** clear-cutting trees in Resource Protection Areas. If trees are to be removed, it should be done selectively, removing only trees that are dead, dying, or diseased.

**Q.** *Can I build a swimming pool in the flood plain?*

**A.** The Flood Plain Ordinance does not expressly prohibit swimming pools. However, the County's *Chesapeake Bay Preservation Ordinance* **prohibits** the location of swimming pools in a flood plain that is part of a **Resource Protection Area**. The Department of Environmental Engineering strongly discourages swimming pools in flood plains, because they will be subject to periodic flooding and will collect debris.

**Q.** *Can I build structures such as sheds and detached garages in the flood plain?*

**A.** You can do so in some cases, as determined by the Department of Environmental Engineering. The entrance or "front" of the structure must be located along the landward edge of the flood plain (the edge farthest from the stream).

**Q.** *What kind of drainage improvements will the County make in a flood plain?*

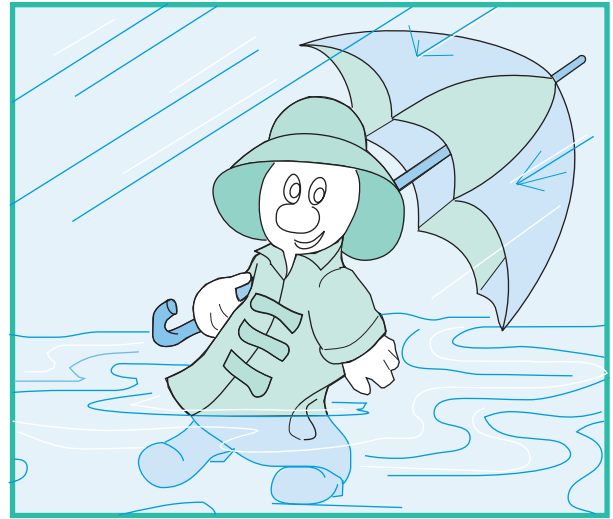
**A. None.** Flood plains are natural areas that serve as a "storage area" for excess water in streams and other waters during severe storms. The County will assist in assessing any problems that may be occurring on a homeowner's property due to the existence of a flood plain.

**Q.** *How will the County help with erosion problems in the flood plain or watercourse?*

**A.** If a man-made channel is located in a County easement, the County will assess the problem and take any necessary corrective measures. If there is erosion in a stream or drainage-way that is not in a County easement, the County may provide rip-rap (large rock) to the homeowner or Homeowners' Association to help correct the problem.

**Q.** *What can I do about beavers in the flood plain?*

**A.** Call the Drainage Superintendent at 748-1035 with specific questions about beavers. Before trapping beavers, the State Department of Game & Inland Fisheries must be contacted, and a permit must be obtained.



## What You Should Know if a Flood Plain Is Located on Your Property

**Fact:** A 100-year flood plain is defined as an area with a 1% chance of being flooded in any given 12-month period. This means that, during periods of wet weather such as spring or fall, or during severe summer storms, water might frequently flow over the stream banks and spread onto the land next to the stream.

**When purchasing property, it is important to look for flood plains.** Flood plains are most often delineated on final record plats for subdivisions recorded after 1979.

**Fact:** A 100-year "backwater" refers to a temporary, artificially created ponded area, caused by the backup of stormwater from a culvert or pipe. Such areas are designed to pond water during severe storms, because the culverts and pipes are designed to handle only average storms. To handle the most severe storms, those culverts and pipes would have to be designed as excessively large structures.

### And More Facts:

- ✓ Houses that were built before 1983 (when the *Flood Plain Management Ordinance* was adopted) were not required to be set back from flood plains.
- ✓ Houses built between 1983 and 1989 were required to be set back 5 feet from flood plains.
- ✓ Houses built from 1989 to the present are required to be set back 20 feet from flood plains.

This is one of a series of fact sheets about surface water quality issues in Chesterfield County. Copies are available in the Department of Environmental Engineering offices at 6806 West Krause Road. The series includes:

- *Chesterfield County's Stormwater Management Program* (August 1997)
- *Household Guide to Chesterfield County's Illicit Discharge Ordinance* (October 1997)
- *Business and Industry Guide to Chesterfield County's Illicit Discharge Ordinance* (October 1997)
- *Chesapeake Bay Resource Protection Areas and Flood Plains* (December 1997)
- *The Streams of Chesterfield County* (September 1998)

These fact sheets are produced by the Water Quality Section of the Department of Environmental Engineering. Our mission is to protect, maintain, and restore the chemical, physical, and biological integrity of Chesterfield County's waters. This mission furthers one of the County's Strategic Goals: to maintain an extraordinary quality of life in the County by protecting and preserving our natural and historical resources. For more information, call 804-748-1035.